# NATIONAL SYNCHROTRON LIGHT SOURCE SAD RISK ASSESSMENT

# **APPENDIX 4**

SYSTEM: Building 725
SUBSYSTEM: N/A

**HAZARD:** Natural phenomena

#### **HAZARD IMPACT:**

Equipment and building damage or loss, or programmatic impact due to severe weather, flooding, earthquake

# **RISK ASSESSMENT PRIOR TO MITIGATION:**

Consequence	<b>∐l</b> High	■II Modera	ite	☐ <b>III</b> Low	<b>⊠IV</b> Routine
Probability	■A Frequent		□D Rei	mote	
	<ul><li>□B Probable</li><li>□C Occasional</li></ul>		■E Extremely Remote		
			☐F Impossible		
Risk Category	<b>□I</b> High	■II Modera	ite	□III Low	<b>⊠IV</b> Routine

# MITIGATING FACTORS

- \*\*Significant Natural Phenomena Events including high winds, flooding and seismic were investigated and documented during the Accelerator Implementation Plan (1994) and documented in that plan entitled "DOE Accelerator Order 5480.25 Implementation Plan for BNL Natural Phenomena Hazards Evaluation". BNL accelerators, including NSLS, built to the appropriate national consensus codes and standards at the time of their construction. Accelerator facilities determined to be low hazard and Performance Category 2 (as per DOE STD-1021-93)
- NSLS contains small quantities of activated, radioactive or hazardous chemical materials
- BNL Emergency Plan
- NSLS Emergency Plan
- Control Room Response to Emergencies at the NSLS
- Emergency drills

# **RISK ASSESSMENT FOLLOWING MITIGATION:**

Consequence	☐ <b>I</b> High	■II Moderate	☐ <b>III</b> Low	<b>⊠IV</b> Routine		
Probability	☐A Frequent	<b>☑D</b> Remote				
	■B Probable	☐E Extremely Remote				
	□C Occasiona	al 🔲 <b>F</b>	Impossible			
Risk Category	∏I High	□II Moderate	□III Low	<b>⊠IV</b> Routine		